AMENDMENT TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

What is claimed is:

1-46. (Canceled)

47. (Currently Amended) A vapor phase growth method of a metal oxide dielectric film on a substrate by a thermal CVD method using organometal gases, comprising a step of:

carrying out film formation by introducing the organometal gases and an oxidizing gas into a vacuum chamber through separate introduction inlets while heating the substrate set in the vacuum chamber and keeping the total pressure of the vacuum chamber at 1×10^{-2} Torr or lower;

wherein the oxidizing gas is nitrogen dioxide (NO_2), oxygen (O_2), or ozone (O_3).

48. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the substrate temperature is at 450°C or lower during the film formation.

49. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the total pressure of the vacuum chamber is at 1×10^{-4} Torr or higher and 1×10^{-2} Torr or lower.

50. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the oxidizing gas comprises nitrogen dioxide gas.

51. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the film formation is carried out by controlling the gas supply conditions for the organometal gases and/or the oxidizing gas to be self-controlling gas supply conditions as to obtain the metal oxide dielectric film having a prescribed composition and crystal structure.

52. (Original) A vapor phase growth method of a metal-oxide dielectric film according to the claim 51, wherein the flow rates of organometal gases and the oxidizing gas are directly controlled without using a carrier gas to introduce the organometal gases and the oxidizing gas into the vacuum chamber.

53. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the metal oxide dielectric film is a PZT film or a BST film.

54. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the substrate has capacitor electrodes formed thereon which comprises at least any one of metals or metal oxides of Pt, Ir, Ru, IrO_2, RuO_2, TiN, or WN and the metal oxide dielectric film is formed on the substrate in vapor phase.

55. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the substrate has an Al wiring formed thereon and the metal oxide dielectric film is formed on the substrate in vapor phase.

56. (Original) A vapor phase growth method of a metal oxide dielectric film according to claim 47, wherein the temperature of the inner walls of the vacuum chamber is equal to or higher than a temperature to allow the organometal gases to have a sufficiently high vapor pressure and equal to or lower than an organometal gas decomposition temperature.

57-117. (Cancelled)

118. (Previously Presented) A vapor phase growth method of a metal-oxide dielectric film according to the claim 47, wherein the flow rates of organometal gases and the oxidizing gas are directly controlled without using a carrier gas to introduce the organometal gases and the oxidizing gas into the vacuum chamber.

119. (Currently Amended) A vapor phase growth method of a metal oxide dielectric film, comprising a step of forming the metal oxide dielectric film on a substrate by introducing organometal gases and an oxidizing gas into a vacuum chamber through separate introduction inlets while heating the substrate set in the vacuum chamber,

wherein the flow rates of the organometal gases and the oxidizing gas are directly controlled without using a carrier gas to introduce the organometal gases and

the oxidizing gas into the vacuum chamber, the total pressure of the vacuum chamber being kept at 1 x 10^{-2} Torr or lower during formation of the metal oxide dielectric film on the substrate;

wherein the oxidizing gas is nitrogen dioxide (NO_2), oxygen (O_2), or ozone (O_3).

120. (Currently Amended) A vapor phase growth method of a metal oxide dielectric film, comprising a step of forming the metal oxide dielectric film on a substrate by introducing organometal gases and an oxidizing gas into a vacuum chamber through separate introduction inlets while heating the substrate set in the vacuum chamber, wherein the oxidizing gas comprises nitrogen dioxide gas, the total pressure of the vacuum chamber being kept at 1 x 10^{-2} Torr or lower during formation of the metal oxide dielectric film on the substrate;

wherein the oxidizing gas is nitrogen dioxide (NO_2), oxygen (O_2), or ozone (O_3).

121. (Previously Presented) A vapor phase growth method of a metal oxide dielectric film, comprising a step of forming the metal oxide dielectric film on a substrate by introducing organometal gases and an oxidizing gas into a vacuum chamber through separate introduction inlets while heating the substrate set in the vacuum chamber, wherein the temperature of the inner walls of the vacuum chamber is equal to or higher than a temperature to allow the organometal gases to have a sufficiently high vapor pressure and equal to or lower than an organometal gas decomposition temperature, the total pressure of the vacuum chamber being kept at 1 x 10^{-2} Torr or lower during formation of the metal oxide dielectric film on the substrate.